

Encausting Cambridge, Nantz.
Art of Drawing in Perspective
Lent to Tho. Sanders

Georgina Henrietta Price



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THE
ART
OF
DRAWING, *and* PAINTING
IN
WATER-COLOURS.

WHEREBY

A Stranger to those ARTS may be immediately rendered capable of Delineating any View or Prospect with the utmost Exactness; of Colouring any Print or Drawing in the most Beautiful Manner; and of taking off MEDALS instantly, by various Ways, never before made publick: Intermix'd with several curious Receipts for the Use of Painters, Statuaries, Founders, &c.

WITH

INSTRUCTIONS for making Transparent Colours of every Sort; partly from some Curious Personages in *Holland, France, and Italy*; but chiefly from a Manuscript of the Great Mr. BOYLE; particularly a Receipt of that Gentleman's, for making a blue Colour equal to Ultramarine.

The FOURTH EDITION.

L O N D O N :

Printed for J. PEELE, at *Lock's-Head* in *Amen-
Corner, Pater-Noster Row.* MDCCLXXXV.

[Price One Shilling.]

THE
ART
OF
DRAWING AND PAINTING
IN
WATER-COLOURS

A TREATISE
ON THE ARTS
OF DRAWING AND PAINTING
IN WATER-COLOURS
BY
J. SMYTH

LONDON
Printed and Sold by
J. SMYTH, in Pall Mall
1791

THE SECOND EDITION
REVISED AND CORRECTED
BY
J. SMYTH
LONDON
Printed and Sold by
J. SMYTH, in Pall Mall
1801



P R E F A C E.



THE following Papers are the Effect of some Years Study and Labour, collected in my Travels, and at length put together, at the Instance of a noble Friend, for his Instruction in the Art of Drawing and Painting in Water-colours. Among other Particulars which they contain, are several Receipts for making and preparing of Colours, from a Manuscript of the late famous Mr. Boyle, which has never yet appeared in Publick, and was communicated to me by the late

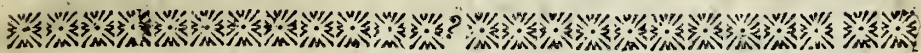
P R E F A C E.

late Lord Carleton. As I have experienc'd what is related in this Tract to be curious and extraordinary, I make no Apology for offering it to the View of the World: And on my own part, I shall think my Time well spent, if my Readers reap any Delight or Advantage from what I here publish from my own Observation; since I can assure them, that it was calculated for the Entertainment and Diversion of those who have a Genius for such pleasant Amusements, as well as for the Improvement of those who have already made some Progress in the delightful Arts above-mentioned.





THE
ART
OF
DRAWING, *and* PAINTING
IN
WATER-COLOURS.



CHAP. I.

*Rules for Drawing any Object in its Out-
lines, as exact as the Life or Nature.*



TAKE a Sheet of the thinnest, or whitest brown Paper, and brush it over with Oil of Turpentine, which will immediately render it transparent, and then put the Paper to dry in the Air; when 'tis dry, strain it upon a Frame, and fix it against any Object you design to draw; as an House, or Hill, or Tree, &c. then just before it, place a piece of Wood with an Hole in it, fit for one Eye to look through; and as you meet any Out-lines of the Object you desire, upon the transparent Paper trace them over with a Pencil; so will you be sure that you cannot err; for there will be nothing but just Proportion, and a true Representation of Nature.

To make this still of more Elegancy, observe the Tracing of your Draughts where the Shades are, and mark them with your Pencil; for all the Art in the World can never dispose the Shades so regularly as one may touch by this Method: But the Shades must be done quickly after the Out-lines are drawn, and not at different Times, because every Instant the Sun changes them.

IN this too observe, that in certain Objects you will have fainter, stronger, and yet more dark Shades; and in your Remarks of them take such Memorandums, as may direct you how to finish them, with *Indian Ink*, or other Colour, when you sit down to compleat your Work.

THE best Way that I know, is to prepare three Shells or Gallipots of *Indian Ink* mix'd with common Water, before you attempt to trace out your Object, *viz.* one of a very faint Black, the next of a middling Black, and the other of an intense Black: Number them 1. 2. 3. from the lightest to the darkest; and as you make your Observations of the Shades on your Object, mark upon your Draught the same Numbers as they happen to appear, so that afterwards you may finish with Certainty.

AGAIN, it is necessary in the Drawing of any thing after this Manner, to observe, that the Lines on the shady Side should be thick or bold, and those on the lighter Sides should be thinner or finer, in proportion to the Light that falls upon them. As for Example: In the darkest Part a Line may be of this Thickness; in the next dark Part somewhat thinner; and in the other thus unless in things at a great Distance, hardly to be understood, or so faint as hardly to be perceived, thus; a mere Shadow as it were.

SOME

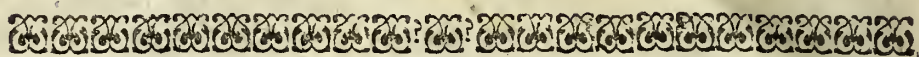
SOME have been guilty of a great Fault, though they have taken the Out-lines very exact, to make all their Lines of an equal Thickness.

IF an Object be represented, we'll suppose two Miles off, and the Drawing be as strong in that Part of the Picture, as if it was next the Eye, or not ten or twenty Feet from the Draughtsman, it would not appear pleasant or natural to the Eye. We must not express a Man with Buttons on his Coat at two Miles Distance, no more than we must have them omitted in a Person so near the Eye as ten or twenty Feet: Though this has inadvertently been done by some who have passed for great Men. And the Shades in those distant Appearances must be in proportion to the Strength of the Objects, as they appear to us, *i. e.* imperfect. Three or four well-directed Touches of the Pencil, on the shady Side, will represent a Figure at the Distance we can discern it, as lively as some hundreds will of the same Figure near the Eye.

BUT the transparent Paper I speak of, is of another Use; for, if we lay it upon any Picture, or Print, in a loose Sheet, you will see all the Lines through it, and may then draw or copy it with the greatest Pleasure. You will then, if the Print or Picture be done by a good Master, see which Lines are strong, and which are tender and soft: Imitate them.

THERE is yet another Way to take Views and Landscapes, which some prefer to the transparent Paper; that is, either with white or black Tiffany, or Lawn, strain'd upon a Frame, and us'd in the same Manner as the Paper; excepting that the Black-Lead Pencil is us'd to the Paper; on the white Tiffany, and on the Lawn, we use Charcoal finely pointed, and very soft;

but on the black Tiffany we use white Chalk of the tenderest fort.



C H A P. II.

How to bring these Drawings to Use; and to copy from Prints, Paintings, &c.

IF we make a Drawing upon transparent Paper, to take a Drawing from it regularly, get a piece of Paper of the same Size, and rub on one side of it some Powder of Black-Lead, till 'tis well and equally black'd, and so well rubbed, that a Touch of a Finger will hardly be tinged with it.

THEN take the Drawing you have made, or Print, and lay the black'd Paper under it, with the black Side downwards, upon a piece of white Paper, and pin the three together in two or three Places; take then a Pin or Needle a little blunt at the Point, and trace it over the Out-lines of your Picture; which, with a little pressing, will direct the black'd Paper to impress the undermost white Paper, so as to receive every Stroke you draw.

WHEN this is done, you must with your Black-Lead Pencil correct what Errors you find, and slightly clean the Draught new made with some stale Bread Crumbs. The Black-Lead Pencil is so hard to be found tolerable, that I know not above one Place, where we can get one that will do the Service we require. If we find a good piece of Lead in the beginning, when we have used an Inch or two, the rest generally proves hard, gritty, and full of Knots.

T H E

THE best I have met with are at the Joyner's Arms in *Broad St. Giles's*, or *Holborn*, just turning out of *Drury-Lane*; at that Place one may have them of soft or hard Lead, and use them till they are reduced to two or three Inches. 'Tis a great Pleasure to a Draughtsman to work with a good Pencil, and as great a Plague to have a bad one.

So the Camel's Hair Brushes are generally very bad; they are indeed cheap enough to buy them in common; but if one would have the best, which should be full of Hair, the Price ought to be accordingly, as they can be made to hold a Quantity of Colour, and be brought to fine Points: 'Tis better to give Six-pence or a Shilling for a Pencil, than to have a Dozen for a Groat.

As for the Draughts drawn on Tiffany or Lawn, lay them only on Paper, *i. e.* that which is drawn with Charcoal upon white Paper, and that drawn with Chalk on black or blue Paper; then, giving each of them a Knock or two with an Hammer, the Charcoal or the Chalk will fall through them, upon the Papers, directly in the Lines they were drawn, and give you the true Representation of the Object you drew from the Life: Upon the black Paper you will see it in white Lines, and so the contrary.

THEN strengthen these Shadows of Drawings with your Black-Lead Pencil, or Chalk, or red Oker, on the Sheets of Paper, where they have made the Marks; otherwise, the Lines would easily be rubbed out. But take care, as I have observed before, that this Amendment be made suddenly; for these tender Draughts are soon vanished, if one does not take care to strengthen them immediately: Begin first at the bottom of the Drawing.

ANOTHER Way is to take a thin piece of Paper, and hold it against a Glass-Window, principally at such a Window as is fash'd ; for the Interruptions of the Lead in the smaller glazed Windows, will hinder part of this Prospect ; the Point is, draw what you see from the Glass, and then the Black-Lead Paper is to be used, as directed before.

THERE is another Way still, which may be more easy to the Hand or Arm of a Person not accustomed to drawing upon a Paper or Lawn placed upright, which is by the Use of a portable *Camera Obscura* ; though to help the first, one may hold a Baguette, or such a Stick in the Left-hand, as the Oil-Painters use to rest the Right-hand upon ; or have some other Rest made for the Right-hand, as may be screwed up and down at one's pleasure. But there is this Difference still between drawing a piece of Perspective, or View, on a transparent Paper or Lawn placed upright against any Object, that such a Piece will take in more of the View or Object, and from a greater Distance than the portable *Camera Obscura* will. However, as the portable *Camera* will at first be most easy to the Arm for the Beginner, by Reason the Objects appear upon an Horizontal Plane, such as a Table, the Hand will have a proper Rest, and more readily follow the Lines represented on the Plane with that Exactness. Indeed such a portable *Camera*, as I mention, is of some Expence, and to such as can afford it, they may have them to any Price, from thirty Shillings to five Pounds a piece, according as they bespeak them, at Mr. *John Fowler's*, Mathematical Instrument-maker in *Swithin's-Alley*, near the *Royal-Exchange*.

WHAT will make the Difference in the Prices, will be the Largeness of the Sizes of the Glasses, which lye horizontally, and receive the Objects which

which we are to trace out with our Pencil: The smaller of these Glasses may be perhaps four Inches square, and the larger fifteen Inches. On such Glasses you will meet the exact Representation (smaller or larger, according to the Bigness of the Machines) of the Objects we point or direct them to, each one adorned with the natural Colours agreeable to the Point of Distance; stronger nearer the Eye, and gradually declining, as the Objects are more remote from it: The Shades of the several Colours are in this Way expressed in a very lively Manner. A few Lessons, with good Consideration, will be of good Information, not only to a Beginner, but to a Master of the Pencil.

BUT still, to advance the Knowledge and Use of this portable *Camera*, I suppose, that instead of the Glasses, which receive the Objects I speak of, there should be placed Frames of transparent Paper, to receive the Objects we have a mind to take, upon which one may use the Pencil still with greater Freedom. One may have a Dozen or two with each *Camera*; or one Frame will serve for as many Papers as we please to strain upon it, if one has Patience to paste them on.

THERE is another Way of drawing Objects in the *Camera Obscura* Way, which is by making a Room as dark as may be, only leaving an Hole in one of the Window-shutters, as low as possible, to receive an Ox-Eye Glass, as they call it, which is sold by the Mathematical Instrument-makers. This turns in a Socket, so as to direct every Object, within a certain Reach, to a Sheet of Paper, placed at a proper Distance within the Room, to receive those Objects; upon which Paper, you may draw them in great Perfection; but they all appear revers'd, or the wrong End upwards: However, they are in as exact Proportion and Beauty, as those represented in the former. In
this

this Case, 'tis not however more difficult to draw, or rather copy the Objects, though they are revers'd, than to draw or copy the several Things which we see upright; on the Frames of transparent Paper, Lawn, or Tiffany; for to trace Lines, will be as easily done one Way as the other: And though the Objects, falling on the Sheet of Paper, will, when we are drawing them, be revers'd, 'tis but turning the Sheet of Paper upside down when they are done, and our Drawing will be right to the Eye.

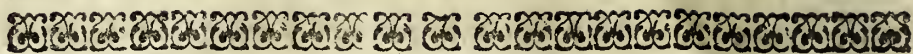
WHEN we shew this by way of Curiosity, to those who are unacquainted with the Reasons why the Images represented on the Sheet of Paper appear upside down, it would not have so desirable an Effect, as if they could be viewed in their natural Situation: But to obviate this Difficulty, let the Sheet of Paper, which is to receive the Objects, be placed against the back of a Chair, and let them look on the several Objects, represented on the Paper, over the back of the Chair, which will set them upright to the Eye. This Way in bringing them to rights, is thought on by very few, though at the first Proof every one will wonder that he did not find it sooner.

THUS far is shewed, how any one may copy either a Print, Drawing, or Piece of Painting, or even make an exact Representation from the Life. But I must yet add, concerning the Taking-off of Prints or Drawings, a Method or two which are easy and diverting, not before mentioned. One is, prick with a Pin any Outlines of a Print or Drawing one has a mind to copy, and then, laying the said Picture on a Sheet of Paper, take a Powder-puff, or a Tuft of Cotton, dipping it now and then in Charcoal-dust, or red Chalk-dust, and beat it over the prick'd Lines, through the Picture, renewing it
with

with Dust frequently by dipping, and then you will have full Directions marked on your Cloth, or Paper, sufficient to finish a just Drawing. *N. B.* Such a prick'd piece of Work will give many hundred Proofs of its Use. Though it spoil the Print or Picture, it saves a vast deal of Trouble to the Painter on the drawing part.

A N O T H E R Way there is to make an Impression from the Print, which shall give a just Copy of it: This is of great Use, when we want to carry every Stroke of the Engraver along with us. It will indeed fully the Print a little, though very little, if you are careful; and this Method will perhaps cost you two Minutes Time, when the drawing of it with every Stroke the Engraver has made, would keep you busy a Month.

F O R this take some soft Soap, either white, or of the green sort; but, for my part, I always used the green Soap; mix this with Water near an equal Quantity, till 'tis near the Consistence of a Jelly: Rub some of this Mixture on the Print, and gently wet the Paper, you would have to receive the Impression from it, with a wet Sponge; then lay it on the Print, and cover all with two or three other pieces of dry Paper, and rub it very hard all over with any Thing that is smooth and polished, and the wetted Paper will have upon it the reverse of the Print you rubbed it upon, with every distinct Line in the Original, if you have been careful to rub it equally.



C H A P. III.

Secrets for Copying of Drawings, &c. continued.

To take a Drawing with fixt Ink.

ON E Way is to take a thin Sheet of Paper, and rub it all over with fresh Butter, as equally as possible; then dry it well by the Fire and rub the butter'd Side with Carmine, till 'tis all equally colour'd, or else rub it over with Lamp-black, or Black-lead-powder, or with blue Bice finely ground; take care in the rubbing on any of these that the Colour will not come off by a very slight Touch of the Finger, and they are then fit for your Work.

WHEN you have chosen a Print, or Design, that you would copy, lay the colour'd Side of your butter'd Paper upon a Piece of clean Paper, and your Print upon the butter'd Paper, and then with a fine Pen or Needle, blunted a very little at the Point, trace the Out-lines of your Drawing carefully, and you will have a good Copy of it upon your white Paper, which may be touch'd up afterwards by Crayons of the like Colour.

A red Ink for making an Impression of a Print.

ON E may likewise use the following Method for taking off or making a Copy from any Print; which is, to mix some Vermillion, finely ground, with Linseed-oyl, but so liquid that it will run or flow in a Pen; with this trace the Lines of your Print, and as soon as all is done, then with a Sponge and Water wet the backside of the Print, and turn the printed side down upon a piece of white

white Paper, so as to lye smooth; then lay over that a piece of dry Paper, and press it hard in every part, and the lower white Paper will receive the Impression: But if you have a Linnen-press, 'tis better to put your Papers between two of the wooden Leaves, and skrew the Press as tight as may be, for you will then have a fine Impression.

Taking Draughts with red loose Ink.

YOU may likewise take some Vermillion finely ground, and mix it with fair Water in a Gallipot, with some Cotton, and it will run very freely in the Pen, so that one may make the finest Strokes we desire; then, with this Mixture draw over all the Strokes of your Print, imitating both the finer and stronger Lines: When all is done, then with a Sponge dipt in Gum-water, with a clean white Paper, and while it is wet, turn the Print upon it, and pressing it well, take off the Print, and all the Strokes will remain on the clean Paper, and as soon as 'tis dry the Vermillion will be fixt to it.

THIS sort of Ink is what a famous Writing-master used, when he had a Book of Writing engraving for him; he writ with this, and, having his Copper-plate covered with white Bees-wax, or white Ground, he turn'd the written side down on the waxt side of the Plate, and rubbing it very equally, the Impression will be upon the Wax.

Taking Draughts with blue loose Ink.

YOU may likewise make such a sort of Ink of blue Bice and common Water, which will run very finely in a Pen, and serve for the same Use as the above Ink.

To take off a Drawing in a standing red Colour by Tracing.

TAKE Vermillion finely ground, and mix it with a little fresh Butter, then rub a clean Sheet

of Paper with it on one side, till it will bear a slight Touch of the Finger, without leaving the Paper too freely; then use this coloured Paper, by laying the colour'd side upon a clean Paper; and upon the colour'd Paper lay on your Print, and trace every Line you think proper, as directed before in Tracing; but be sure you pin the three Papers together at the Corners to prevent their slipping; for if any one should slip, your Work will be spoil'd, or some one or other may inadvertently take up the Print when you have half traced it, and then 'tis impossible you can ever place it right again; so that your Labour will be all lost. This Impression made by Tracing will hold without rubbing. In Tracing, the Quills taken from a Swallow's Wing are very good, after they are thoroughly dry.

IF one has Carmine enough by one, we might mix it with a little fresh Butter, and colour a Paper with it as before directed, and then your Drawing will be of a more beautiful Colour; or, if we would have the Drawing blue, we may colour a Paper with blue Bice and Butter.

A speedy Way of Printing the Leaf of any Tree or Herb, as exact as Nature itself.

TAKE the Leaf of any Plant you desire, and rub the Veins on the Back-side a little, with a piece of Ivory, or a Dog's Tooth, to bruise them a little, then rub it gently with a piece of Woollen, dipt slightly in Oyl of Linseed; when you have done this every where on your Leaf, put the oyl'd side on a piece of white Paper, and pressing it equally in every part, the Paper will remain a perfect Impression of it, which may be afterwards coloured; 'tis soon done, and is useful to such as would remember Plants.

Another

Another Way of Printing the Leaves of Plants, so that the Impression shall appear as black as if it had been done in a Printing-press.

TAKE any Leaf, and when there is no Wet upon it, take such a Ball as they use at the Printers for laying the Ink upon the Letters; and when your Ball is equally covered with Printer's Ink, strike it gently four or five times on the back of the Leaf, till all the Veins are black'd with the Ink; then lay your Leaf on a Trencher or small Board, with the black side upwards, and then wet a piece of white Paper to be somewhat more then moist, and lay it on your Leaf, and upon that lay a smooth Trencher, pressing it very hard, but not so much as to break the fine Fibres of the Leaf; by this Means you will have a fine Impression.

BUT it would be still more easily done, if you could get a piece of Wood, made like a Cylinder, about a Foot long, and an Inch and half Diameter, and cover the middle part of it about six or eight Inches long, with Woollen-cloth rolled three or four times about.

WITH this Roller roll the white Paper that lies upon your Leaf backwards and forwards four or five times, and you will have a very curious Impression.

THE Necessaries for this Work are a Gallipot of Printers Ink, a couple of small Balls, such as the Printers use, to lay the Ink equally on the Leaf, and the Roller I mention. But where Printers Ink cannot be got, then take the following Method.

To take the Impression of any Leaf; as certain as the former Way, only using such Things as may be had in any part of England.

WHEN you have no Printers Ink, rub the back of a Leaf, as before mentioned, with *Linseed-oil burnt*, and then, strewing some Powder of black
Lead

Lead, or for want of that, some Charcoal or Small-coal Dust, or the Powder of burnt Cork, equally, upon a smooth Board just to cover it, stroke it over smoothly with the Blade of a Knife, and when the back of the Leaf is oyl'd, clap it upon the Board, and then putting your white Paper upon the black'd Side of the Leaf, either press it or roll it as before.

BUT if none of these Ingredients should be found, Vermillion may always be found at an Apothecary's; and, mixing this with fresh Butter, to the Consistence of Printers Ink, cover your printing Balls with it, and dab them upon the back of the Leaf, and so take off your Impression as aforesaid.

N. B. The Reason why the back of the Leaf is the proper side to make the Impression from, is, because the Ribs or Vessels rise on that side above the fleshy part of it; and therefore, when they are colour'd with any of these Inks, will give an Impression; but in the Front, Fore-side of a Leaf, the fleshy Parts rise, and these fine Fibres are sunk below them.

Memorandum. Where Vermillion is used, blue Bice may be used either with Butter, or with Oyl, as follows.

A fine red or blue Printers Ink, for making Impressions of this sort.

GRIND either Vermillion, or blue Bice, with some burnt Linseed-oyl, and use it as you would do the other printing Ink; the blue I should chuse for this Work, because, if we should colour the Leaf, the blue would be an agreeable Colour to the green sorts.

The Method of Taking-off the Leaves of Plants in Plaster of Paris, so that they may afterwards be cast in any Metal.

THOSE Persons who cast in Metal, have frequent Occasion to use Leaves of several Sorts to
embellish

embellish their Works, which are generally made from Models done by the Hand, which take up a great deal of Time, and at last are imperfect ; but the following Way, which I learnt from a Gentleman in *Italy*, is much easier.

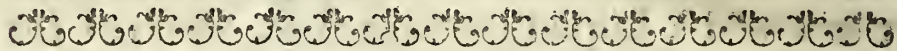
WHEN you have gathered the Leaf, you desire to take an Impression from, lay it between the Leaves of a Book till it will lye flat, then upon a smooth Board with strong Gum-water (made of Gum Arabic) fix the Fore-side or Front of the Leaf to the Board ; when this is done, raise about it a little Wall of course Paste, half an Inch high ; or if you can conveniently surround your piece of Wood with Paste-board or Card paper so close, that it will hold a Liquid for some time, then oyl the back of your Leaf, as is recommended in the Chapter for Casting of Medals, and pour on Water and Plaister of Paris as is there directed, which when 'tis dry, will give you an exact Impression of every Vein of the Leaf, and from which you may easily make a Mould to cast in, as your Fancy directs you.

The Manner of making the Impressions of any Butterfly, in a Minute in all their Colours.

WHEN you have taken a Butterfly, kill it without spoiling the Wings, and contrive to spread them in a flying Manner as regularly as may be ; then take a piece of white Paper, and with a small Brush or Pencil wash a part of the Paper with Gum-water, a little thicker than ordinary, so that it may dry at an easy rate ; then lay your Butterfly on the Paper, and when 'tis well fixt, cut away the Body close to the Wings, and throw that away, then lay the Paper on a smooth Board with the Fly upwards, and on that another Paper, upon which put a smooth Trencher, and a great Weight upon that ; or else put your whole Preparation into a Screw-press, and screw it down very hard, letting it so remain for

an Hour; then take off your Butterfly's Wings, and their perfect Impression, with all their beautiful Colours mark'd distinctly, will remain on the Paper. I have done several this Way, which answers very well; and to explain the Reason why it can be so, you must understand, that all the fine Colours observed on a Butterfly's Wings, are properly Feathers, which stick to the Gum so fast, that, when the Gum is dry, they leave the Wing.

WHEN you have done this, draw between the Wings of your Impression the Body of your Butterfly, and colour your Drawing of that Body after the Life.



C H A P. IV.

Of Taking-off Medals instantly, by various Ways not known.

IT may be useful to some People to learn another Way of preserving to themselves good Specimens, and fine Designs of Medals, that is, such as may serve to draw from at any time; and many thousands of those Specimens may be taken in one Day, at a trifling Expence.

ONE Method is, to take Ichthyocolla, *i. e.* Isinglass, which is sold at the Druggists, and is call'd likewise Fish-glue; it is made up in Rolls twisted in the Form of a Figure of eight. This being broked to pieces, take about an Ounce, and dissolve it in Water enough to cover it, over the Fire, stirring it gently till all is dissolved; then, with a Camel's Hair-brush, stroke some of this Glue over the Medals you want to take off; after the Medals are laid as horizontally as possible, and when all the Surface is covered, let them lie till the Glue is hardened; and then with the Point of a fine Needle,

Needle, or Pin, raise the Edge of the Glue from each Medal, and the whole Impression in Glue will fly off as hard as Horn, with all the fine Sharpness of the Medal, as if it was struck. This Glue may be made of any Colour we please, by mixing the Colour we want in the Water we melt the Glue in. Five hundred of these Impressions in Glue will not weigh above half an Ounce, if each Medal be an Inch Diameter. These must be dry'd immediately, not in an hot Sun, nor in a damp Place, but regularly.

If we use the Isinglass without any Colour mix'd with the Water, we may, when we take our Copies from the Medals, breathe gently on the concave side of them, which in some Measure will moisten our Medal, and then lay it upon a piece of the thickest Sort of Leaf-gold, which will stick to it, and, by shining through the Isinglass, will appear like a Gold Medal; and if we would imitate a Copper Medal, we should mix Carmine with the Water we dissolve our Isinglass in.

WHEN I prescribe Water for this End, it is because it will do well, and may be had any where; but Brandy or Spirits of Wine, will give Glue a much greater Strength, so as to be less subject to soften by damp Air. When I mention this, 'tis from an Experiment I made for preserving the natural Colour of Flowers several Years, which may be useful to the Curious, who use this Glue on any Occasion, and is as follows.

To preserve the Leaves of Tulips. Make some Card-paper into the Figure of Dripping-pans, and, with a strong Mixture of Gum-Arabick and Water, fix them to the Card; then pour on gently warm some of the Isinglass prepared with Brandy, or Spirits, 'till the Leaf is quite covered, and in an Hour or two the Liquor will become hard, and, by keeping the Air from the Flower, will preserve it in all

its Colours for several Years. The same may be done with the Blossoms of the Auricula, which will preserve all their Colours as if they were painted.

I SHALL now mention the Manner of taking off Medals of the largest sort, which will still preserve to us the Delineations of many curious Pieces, and valuable Designs. For this Use, with a Tuft of fine Cotton a little greas'd with Sallad-oyl, rub the Medals gently over, and melt some Stone Brimstone, enough to cover the Medal half an Inch thick; then put an Hoop of stiff Paper round the Edge of the Medal, and when the Brimstone is melted, and not too hot, pour it on the Medal, and as soon as it is fixed and hardned, if you untie the Hoop, the Impression on the Brimstone comes clean from the Medal; which will produce a sharp and correct Mould to cast another from in Plaister of *Paris*. But this should not be used on Silver Medals, because it will change their Colour.

If the Medals are Silver, use the same Method of binding them round with Paper, and oyling them; mix a little Plaister of *Paris* with Water, and fill the Hoop with it, then immediately fill the Case in a sprinkling Manner with the same Plaister till it hardens; and when it is dry take it from the Medal.

BUT from the Moulds cast in Brimstone, which are concave, we again cast such Medals in Plaister of *Paris* as are convex, oyling the Mould as before, and using the Plaister of *Paris* as above directed; so you may take off any Medal, or fine *Bass-relief*, with a great deal of Exactness, even so as to form Medals from them in any sort of Metal. But there is no one that I know so curious in the Management of this Affair, as Mr. *Pingo*, in *New-Street-Square*, near *Shoe-Lane*, *London*.

THERE is a Method of taking off Impressions in Plaister of *Paris* from Copper-plates, by oyling

in a minute Degree the Plates, and then binding them about either with Card-paper, or other Paste-board, and pouring on some of the finest Plaister of *Paris* and Water you can get; and finishing the Work with Plaister, till it becomes dry, and hardens; you will then have a fine Impression, if one may so call it, of the Lines of the Plate, in the Plaister, which will serve to draw from, when you have occasion.

WE may add still the Manner of taking off any fine Engravings from the Tops of Snuff-Boxes, or Watch-cases, which is only holding them over the Smoak of a Candle, till they are quite black; then wipe off the black with the soft part of the Palm of the Hand, and lay on the Engraving a piece of white Paper a little wetted with a Sponge, and over that a thin piece of Flannel, or a piece of brown Paper held hard down over the engraved Part, and being hard rubbed, the Paper next the Picture will receive a fine Impression, as if it had been passed through a Rolling-press.

WE may yet recommend another Method of taking off Medals in great Perfection, which is by getting thin pieces of Lead, and placing the Medal horizontally on the top of a firm Post, or any steady place; lay over the Lead a flat piece of harder Metal, and over that place a piece of a round turn'd Stick, such as is used in the Staff of a Broom, sawn off about five or six Inches in length, and, holding that tight with your left Hand on the Lead and flat piece of Metal, strike the top of the Stick a smart Blow with a large Hammer, and the Lead will be perfectly impressed with the Image of the Medal; this Blow must be done at once, to render the Impression perfect: Even this may be done on any Impression made on Sealing-wax.

WE may likewise take off a Medal, by laying over it a piece of thin Sheet Block-tin, otherwise

called *Foyle*, which is sold at the same Places where the Plaister of *Paris* is to be had, or at some Pewterers Shops, and rubbing it hard upon the Medal, it will give us a very good Likeness of whatever Medal we rub it upon. The Block-tin Sheet I mean, is such as is laid on the Backs of Glasses, when they are to be silver'd, to render them Looking-glasses.

WE may also take Impressions from Medals with Putty, such as the Glaziers use, although the Medals or *Bass-reliefs* are under-wrought.

ANOTHER Way of taking off Medals is to provide the Scraps or Shavings of white Paper, which you may have at the Book-binders; you must boil them well in common Water till they are tender, then bruise them well in a Mortar till they come like a Paste, and boil them again in Spring-water, with a little Gum-Arabick; and, letting this mixture settle a while, pour the Water from it through a Sieve or Linnen-cloth, and what remains is extraordinary good, to either press into any Mould, or upon any Medal, and when the Paste is dry it will come off very sharp.

SOME Medals that are under-wrought cannot be taken off this Way; therefore in such Cases, we must take common Glue with Water, melt it, and when we have fixt a Hoop of Paste-board round the Edge of our Medal, pour on the Glue hot, having first oyl'd the Medal with a Lump of greasy Cotton.

WHEN the Glue is dry and hard, we must take off the Hoop, and the Glue will fly from the Edges of the Medal; and it will then easily come off, being subject to bend and give way, which the other Things before mentioned will not do. We should mind to make our Glue strong enough, and pour it on one third of an Inch thick.

WHEN we have taken the Impression by this Means, we must hoop round our Mould of Glue with
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with Card-paper or Paste-board, as before; and oyl it, so that no Bubbles or Blisters may be seen, that is to say, just make it greasy; then we may cast some Plaister of *Paris* in it, and we shall have a good Copy of the Medal: When this is dry the Glue will fly off, or may be broken off, and we shall have a good Pattern to cast from.

WE may likewise make a Putty of Linseed-oyl and fine ground Starch, which, being well work'd together into a Paste, will take a good Impression from any Medal. This is much better than the common Putty.

WHEN we have these Moulds, we may cast in them good Medals in Bees-wax; but they will come off much sharper if the Mould be in Brimstone, than if it be in Plaister of *Paris*: But when we do this, our Wax should be as well blanch'd or whitened, as one would use for Wax-candles; it is however necessary to grease the Mould before we pour in our Wax, as I have directed before.

HOWEVER, tho' I recommend white Wax as preferable to the other, I would not chuse to have the Copy of the Medal white; for the darker Colours shew the Figures much better.

IF we would have our Copy of a red Colour, we must mix Vermillion with our Wax when 'tis melting; or if blue, put into our melted Wax some Stone-blue well beaten or ground.

As soon as our Wax Medals are cold enough to take off, we should lay some Leaf-gold upon them, and with a piece of Cotton press it down gently, without rubbing it backwards or forwards, and that will gild our Medal.

WHEN we have cast Medals in Plaister of *Paris*, to make them look like Steel or Metal, we must rub them over with a Piece of Cotton dipt slightly in Oyl, and then put on them some Powder of black Lead, and rub them well with a Brush, such as is
us'd

us'd for the Teeth, 'till the whole is equally covered; and they will have a fine Gloss upon them.

BUT we may make the Plaister of *Paris* Medals of the Colour of Box, by boiling them in Linseed Oyl; and it will harden them, so as to bear the Brush to be cleaned if any Dust gets at them.

IF we would have our Plaister of *Paris* Medals of a yellow or golden Colour, we must take a little Pearl-ash, and boil it in a Pint of Water, 'till it makes a strong Lixivium; then put in about half a quarter of a Pint of *French* Berries, and boil them till the Liquor is of a very strong yellow, and use this Liquor with our Plaister of *Paris* instead of Common Water.

IF we would have our Plaister of *Paris* Medals be of a blue Colour, we must boil some Lacmus or Litmus in River-water, 'till the Water is as blue as we think proper; and must use this Water with our Plaister, when we cast a Medal, to render it of a fine Colour.

IF we would have our Plaister Medals of a red Colour, we should boil a little Raspings of Brasil-wood in pale stale Beer, and when it is strain'd off, use it as common Water with the Plaister.

I HAVE not yet try'd, whether the fine transparent Gum made of Verdegrease will mix with Plaister of *Paris*, but I have good Reason to judge that it will; and as it is cheap enough, I suppose it would not be unworthy any one's Tryal.

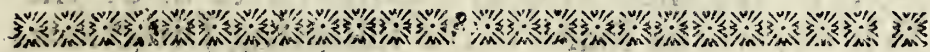
I HAVE often thought, that by these Means one might easily collect a Set of all the Coins of our Nation, and to distribute them as one should, in the several King's Reigns, they would make no disagreeable Furniture, being plac'd in proper Order; the Gold by themselves of each King's Reign, with his Figure and the Reverse by one another, and under it the Value of the Coin; then the Silver in their proper Order; and the Brass, or Copper, or Pewter,

Pewter, (for such we have had) and even the Leather Coins should not escape our Notice.

OR, to improve this, if we had Time to spare and good Opportunity, we might have the Resemblance of the Coins of every Country; and by writing the Value of each of them, such a Collection would be of use to Travellers, as well as to Historians.

THE easiest Way of doing this would be with the Ichthyocolla or Fish-gluë; and so for the Gold Coins use Leaf-gold; as before directed; for the Silver, Leaf-silver; and for the Copper, Leaf-copper, which is made in *Germany*: Or else for Silver we should make our Medals with *Foyle*, as before directed; and for the Leather Coins mix a little Fullers Earth with the Water or Spirit, before we melt the Fish-gluë or Isinglass in it.

So far I have given Instructions how we may either make Drawings from the Life, or copy whatever we think proper from Prints, Paintings, Medals, &c. tho' we knew nothing of Drawing before.



C H A P. V.

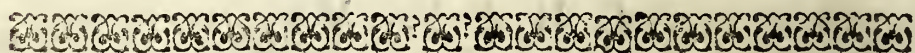
Of Colours for illuminating of Prints in the best Manner; or of Painting in Water-Colours.

COLOURS are to be distinguished in the following Manner; we must first take White, the next Yellow, the next Orange, and then proceed to the Red, after that the Purple, then to the Blue, and after that to the Black. Observe, White and Black are the Extremes of Colour; then in the next Place, Yellow is the lesser point of Colour towards the White, and the next to that is the Green, and after that the Blue. I speak of this, because

because every one who has a mind to know the Manner of Colouring of Prints, or painting in Miniature may profit by it.

I SHALL begin then with regard to Colouring of Prints. If the Paper be pure white, use no Colour upon it, unless in the shaded Parts; and then in painting of Flowers, if they tend towards a reddish Colour, use a faint Colour of Carmine with Gum-water, upon the Shades only; if blueish, use a little faint Indigo in Gum-water, slightly pass'd over the Shades, easily touching upon the Lights; where there is a yellow Tinge, either use a faint Tincture of Gamboge, or of *French Berries*, which will be described among the Yellows; or if the White have a purplish Cast, use a thin Lake on the shady Side, suffering the Colour only to shine a little into the Light, it will give a Lustre to the Whites; and if a greenish Cast should be there, use either a faint Colour, hardly to be discern'd, of the sap Green, or in proportion, of the sap Green mix'd with the Verdegrease Green.

N. B. All these Colours mention'd to shade the Whites, may be found in the following Directions.



C H A P. VI.

Of WHITES for Painting in Miniature.

THE best White that is pretended to be sold in the Water-colour manner, is the Flake-white, which is better than the White-lead ground: This, if it is pure, far exceeds the White-lead in Beauty; for the White-lead is apt to turn blackish, especially if you use it with hard Water.

BUT the best White that I know, is made of Pearl, or the finer Parts of Oyster-shells, made into an impalpable Powder, that is, so soft as to
feel

feel like Grounds of Starch, or Powder for the Hair, when we touch it with the Fingers; this is called by some of the Colour-men Pearl-white, but 'tis hard to be found. If we have occasion to use it, this white will mix well with any Colour; but if we use White-lead, let it be first rectified with white Wine Vinegar, which will cause a Fermentation, and soon make the white settle; then pour off the Vinegar, and wash it with common Water; that is, put the Powder into a Glass of Water, stir it about, and presently pour off the Water, while it is white, into some clean Receiver; and when the white Parts are settled, pour off the Water from thence, and they will be extremely fine. I mention this, that every one may make their Colours of the finest Sort. It may be perhaps a little Trouble; but who would not use such pains to be superior to any Thing that has been before in the same Way?

WHEN the White we speak of is settled, add to it as much Gum-water as is necessary to bind it, or give it a Glaze; but take Notice that I would not have any white used in colouring of Prints, but only with dry Colours, when we paint in Miniature.

IT is remarkable that White-lead will change black, if the Water we use with it comes from Iron or Clay: When I say black, I mean that in a Month or two you will find the Places where it lies the thickest, tinged with black, and when 'tis mix'd with any other Colour, it will soon change, or alter it.

FOR this Reason, I have try'd divers sorts of White; among others, the Powder of Egg-shells, of the brightest Colour, and well clean'd and wash'd, is very good to be ground with Gum-water, or else put about a twentieth part of clear white Sugar candied to grind with it in Water; reduce this as fine as possible, that is to the state of what we call an impalpable Powder, and use it. A Gentleman, whom I have given this Receipt to, tells me,

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that

that it is still more to the purpose to pour it on some rectify'd Spirits of Wine, which, he says, will clear it from the Dross; but I have not try'd the Experiment: I suppose, that when the Spirit of Wine has done its Work, it must be pour'd off, and then the Parts left behind must be mix'd with Gum-water again; but that Egg-shell powder is of great Service as a white in Water-colours, I know very well; and that also itself, an Oyster-shell powder, well rectify'd and mix'd with the white of an Egg well beaten, will make an extraordinary Mixture with other Colours, and correct them from changing or altering their Qualities.

W H I L E I am speaking of white for illuminating of Prints, as I have already observed, that the clear white of the Paper is proper to be left uncolour'd; so if it happens, that the Paper is given to *sink*, as it is called, or to spread any Water-colour we lay upon it more than is necessary, then the Way to correct it is as follows: We must fix the Paper in such a Station, as may only receive the Colour we lay on to glaze just as far as we design'd it; then take some Starch boil'd and prepared in Water, of a middle Strength, and with a large Painting-brush stroke it over the back of the Print, and, when it is well dry'd in the Air or Sun, put the Print in a Book, with a Weight upon it, to rectify the Crumplings which it may receive by wetting of it; so will any Print be made to receive Water-colours as one would have them be distributed, and none of them will then run farther than we intended.

T H E R E is an Earth brought sometimes from *China* of a very soft Nature, and very white, which I find is better in Water-colours than any of the rest; but 'tis very scarce.

C H A P. VII.

Of Y E L L O W S.

THERE are some Objects which have the Appearance of Gold shining through the Colour of Green, Red, or Blue; such as some sort of Flies and Beetles, and such as the Cantharides, which last Sort every one may buy at the Druggists. This Gold Transparency is very well imitated, by laying on the Drawing some Leaf-gold on the shaded Part, a little giving in to the light Side of the Print; the Way of laying on of Leaf-gold, is to wash the Part where the Gold is to be with strong Gum-water, and soon after that put the Gold on as smooth and even as possible, pressing it down close with Cotton: But take care that, when you lay on the Gum-water, you do not exceed the Limits you would have the Gold appear to shine. In this Case the Gold is only to shine through the transparent Colour, which is to be laid upon it.

Now it must be understood, that the Leaf-gold will not regularly receive Water-colours; so that to render it subservient to our purpose, we must, with a little thin Liquor of Ox-gall in a Painting-brush of Camel's Hair, stroke it over, and then it will receive any Colour we have a mind to paint upon it, and hold it. So you may have Gold Greens, Gold Reds, and Purples, Blues, or what you please. The Greens may be, first the Verdigrease Green, which I shall describe hereafter; or the Sap Green, or Lake, or Carmine, if they are good; or for Purples, Lake and fine Indigo, or Carmine and Indigo; and for the Blues,

Indigo on the dark side, and on the light side a little stroke of Ultramarine Blue, just to shine into the Light, and it will have a wonderful Effect.

N. B. One may find upon Rose-trees in *June* and *July*, a Beetle of a green Gold-colour, which will serve to govern this kind of Painting. As for Gold of itself, I would not advise it to be used, unless we polish it, and then you may take the following Method.

WE see in many Manuscripts fine Gold Letters, which rise above the Surface of the Volume or Paper; these have raised the Admiration of the Curious, and the Manner of making them is but little known; the Composition, which raises them above the Paper, is made, as I am well informed, of Vermillion and the white of an Egg, whisk'd or beaten up to that Consistence, as is called an Oyl, work'd together like a kind of Paste, and with a Stamp fix'd to the Paper with Gum-Arabick; on this Figure of a Letter wash, with a Camel's Hair Pencil, some strong Gum-water, taking care that the Gum does not reach more than the Out-lines; then lay on the Leaf-gold close with some Cotton, and as soon as it is dry, rub it with some dry Cotton, and then polish it with a Dog's Tooth; this will make it appear as if it was really cast in Gold.

THERE is yet another Way of working these Things in Gold; and that is, by using the Gold which is prepared in Shells, but it must be pure Gold, and not such as is brought from some Places in *Germany*, which will change Green in a few Days time.

BEFORE you use this Gold, cover the shady parts with Vermillion; and then, after your Gold is well rectified with Spirits of Wine, lay it on with Gum-water, which will mix with it very well, and when it is dry, polish it with a Dog's Tooth.

Tooth. I chuse when I lay on this Powder-gold, to leave the Lights vacant of it, and it makes a much brighter Appearance, than if one was to cover the Object all over.

BUT if one was to cover by Accident the whole Piece with Gold, there is no better Way to set it off, than by tracing over the shady Parts with Gall-stones; or which is much preferable, the Yellow, which I shall give the Composition of below, made of *French Berries*, I mean that which is the deepest in Colour; a little Minium brightens it very much; but see how I rectify the Minium, amongst the REDS, and polish the Gold before you use any Minium to it.

SINCE I have mentioned Gold, I am next to speak of the Yellows, as they fall gradually in their Course of Strength.

THE first is a kind of Straw-colour, and is made of Flower of Brimstone, which in itself is fine enough to mix with Gum-water; and the Manner of Preparing Gum-water, since I have not yet mentioned it, I shall insert at the end of this Treatise of Colours.

A COMMON Way of illuminating of Prints, is by giving the Tincture of Gamboge for a Yellow; and this may be of two or three sorts, either fainter or stronger; the last to be a Shade to the first, and that to be shaded with the Preparation of *French Berries*, which I shall presently mention.

THE great Mr. *Boyle* has left some Papers behind him that were never published, which my Lord *Carleton* gave me, and I shall insert occasionally in this Treatise. With regard to yellow Colours, he says, that if the Roots of *Barberries* are cut, and put in a Lixivium made strong with Water and Pearl-ashes, there will be a fine yellow Colour produced from it; which I have tried, and succeeds very well.

ANOTHER Way Mr. *Boyle* proposes, to make a transparent Yellow, which is, to take the Root of the Mulberry, which affords a very yellowish Juice, to wash it well from the Earth in common Water, and boil it in the Lixivium I speak of, made with Pearl-ashes and Water; from this we may take out a strong Tincture, much deeper than the former; but the Roots of the Mulberries are much harder to be had than those of the Barberries; for Mulberry-trees are very scarce, and the Barberries are in almost every Hedge in *Essex*, about *Littlebury* especially.

WITH regard to the Barberry-root, I think it would be worth while to plant them on purpose, for the Advantage that one might make from them by Dying; the Fruit, in my Opinion, being of little or no Signification, but the Root and the Wood, I think, will nearly answer the same End, in producing a fine Yellow.

YELLOW Oker will make another good pale Yellow; but for illuminating of Prints, it is a Colour rather of too much body; however being well ground with Gum-water, it is of use after it has been well wash'd.

ANOTHER good Yellow may be made from the Plant call'd Celandine, infusing it in Water, and pressing it gently, and then boiling the Liquor with a little Allum; this Yellow will be a little inclining to Green.

BUT the Yellow which I like the best, and may be used in several Capacities of Lights and Strength, is that made of *French* Berries, prepared as follows.

TAKE of *French* Berries an Ounce whole, and boil them in a Pint of the Lixivium made of Pearl-ashes and Water, till the Liquor will give a fine Tinge of Yellow to a bit of Paper dipp'd in it; then pour it off from the Berries, and when 'tis

'tis cool, put it in a Bottle for Use. But if we only put *French* Berries to infuse in common Water, they will produce a good Yellow, but then it will not be durable.

THEN again, add half a Pint of the same Lixivium to the Berries, and half an Ounce of fresh Berries, and boil them, 'till the Liquor is as deep as Gall-stone; which will serve to shade all the Yellows you can use of any sort. You may boil this even to produce a brown Colour; and with a little Ox-gall, it will serve to shade any Leaf-gold that has been laid on Paper, as directed before, and is much preferable to Gall-stone in imitating any Gold-colour. It answers well upon a Tincture of Gamboge, or any of the former Yellows.

NEXT to this is the Tincture of Saffron, which, with common Water only, affords a bright reddish Yellow, such as one would have (to cover the shadow'd parts of a Print) for an Orange or *bel'd** Gold-colour; however, there is nothing more High, when we use Saffron, than when we infuse it in rectified Spirits of Wine; but then the Colour flies, unless we load it with Gum-Arabick, as I have try'd.

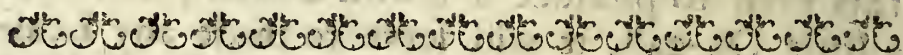
As for a deep Yellow with a body, *Dutch* Pink comes the nearest to the aforesaid strong Yellow made of *French* Berries, in point of Colour; and of a lighter Yellow is the *English* Pink, which is still made of *French* Berries, and in a body likewise.

I CANNOT help observing, that one may extract a good yellow Colour, for illuminating of Prints, from the fresh Roots of Ginger, if one can get

* By *bel'd* is meant the boiling of pure Gold in Liquors, which will take away the Yellow of it, and bring it to be of a reddish or higher Colour.

get nothing else ; I speak this, because sometimes one wants a good Yellow, and any one may find this any where, if Gamboge can't be had ; and it makes a fine Green, with the transparent Verdegreafe I shall hereafter mention. *N. B.* This last Hint I took from Mr. *Boyle's* Papers.

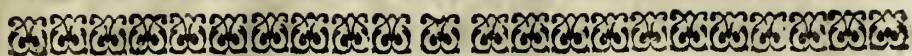
It is again to be remark'd, that the *English* and *Dutch* Yellow Pinks are made with *French* Berries ground to a fine Powder and boiled.



C H A P. VIII.

Of ORANGE COLOUR.

THE Orange-colour, which is useful to wash fine Prints with, consists in laying on a Teint of Gamboge, and over that, some of the Minium or Red-Lead, such as I shall describe, to be wash'd, and render'd fine and fit for Use ; for, as it is bought at the shops, it is not by any means fine enough to paint with, and especially will change or turn black after a few Weeks, if it be not refin'd ; but if it be well prepared, will be very lasting and beautiful : But we must take this by the Way, that in the refining of it, two Ounces will not produce above 40 Grains of good Colour, to stand the Test of the Painters. I shall presently describe the Method of Preparing it : This Colour may be mix'd with Gamboge, upon a white *Dutch* Tile to render it of the Teint we desire, either soft or stronger ; or one may glaze the Gamboge, and strengthen it with Tincture of Saffron, to make it glare into a strong Orange.



C H A P. IX.

*Of MINIUM, or the brightest Red-lead,
and how to prepare it.*

THE Minium, or Red-lead, is as heavy and strong a Colour as most we have, but is the most delightful one, when well prepared, that is, when 'tis well wash'd and clean'd of its more weighty Parts, which occasion it to turn black. My Way of doing it, as the great Mr. Boyle directs, is to put 3 or 4 Ounces of it in a Quart of Rain-water; then stir it, and pour off the Water immediately, and let it settle to the bottom of every Cup or Glafs you pour it in; then pour off that Water, and in a Day's time you will have the Colour dry, and as fine as you can wish; put then a little piece of Gum-Arabick to each Glafs or Cup, and as much Water as will moisten each of them; Use any of these afterwards with the Gum-water, as shall be hereafter directed; but if the Gum, you should happen to put in at first, may be strong enough to glaze it, then use only common Water; in a Word, as your Colour is less gum'd or over-gum'd, use less or more Gum-water; for of itself 'tis a dead Colour.

WHEN you use this Colour, touch it gently on the Yellow we have mentioned into the light Side, and if it wants a Shade, there may be a little Vermillion put upon it; but Vermillion is too heavy to paint with, when we illuminate Prints, because it hides the Shades of the Engraver; however, sometimes they had better be hidden than preserved: For my part, I generally shade this Red-lead or Minium with Carmine,

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which

which gives it a fine Effect, and renders it equal to the brightest red Flower I ever saw, leaving still the Lights uncoloured, only dashing a little way into the Lights with the Minium.

VERMILLION I must advise to be left out of the Question, unless it is well wash'd, as I have directed the Minium to be, and then chiefly for dry painting; One may think then, that after I have advised the Vermillion to be abandoned, it should be quite left out of my Table of Colours; but I speak at that Time to such Persons as can use it moderately, and with Judgment; for all heavy Colours will drown the Shades or Strokes of the Engraver.

WHEN the Carmine has shaded the Minium, or Red-lead, it may be shaded again with Lake in the strongest Part, to bring it to a deeper Red.

IT may be a Wonder to some, that when I speak of Orange-colours, I should mention some of these deep Sorts, tending to Purples; but I mention them as Shades, and without which the Orange or Red could not appear with any Brightness.



C H A P. X.

Of R E D S.

SECT. I. *Of S C A R L E T.*

WHEN we have passed the Orange, we next come to the Scarlet, which may be represented on a Plane with Minium, a little mix'd with Vermillion; but if you have Occasion

sion to paint a Flower of a Scarlet-colour on a Print, let your Lights, as well as Shades, be covered thin with Minium, and the shaded Parts glazed with Carmine, which will produce an admirable Scarlet, such as we see in the Flower of the Scarlet Martagon.

SECT. II. *Of* CRIMSON.

FROM the Scarlet we next come to Crimson, which is represented with Carmine; but I must inform the Person who is to use it, that there are several Sorts of it, some darker, and some much coarser than others, and therefore it should never be bought by Candle-light, unless of such as one can well trust; for between the very best and the worst Sort, there is about ten Shillings difference in an Ounce, or indeed all the Money an Ounce will cost, for the bad will spoil all our Work. The best that I have met with was at Mr. *Goupee's*, the great Fan-Painter in *King-street, Covent-Garden*; I have had some very good likewise, at the Colour-shop, the Sign of the *Bell*, against *Arundel-street* in the *Strand*.

SECT. III. *Of* LAKE.

AFTER this Crimson, comes next the Lake, which shades and heightens the Carmine; but it is to be observ'd, that in the laying of Carmine upon a Print, let your Lights be touch'd only with a very thin Teint of it, hardly to be discerned; then just on that part of the Light which enters upon the Shade lay it on strong, and cover the Shade with it; and after that, on the stronger part of the Shade lay some Lake. The best Lake I have met with, is at the great Colour-shop at the *White-bart* in *Long-acre*, near *James's-*

street, Covent-Garden, ready prepared in Shells for Water-colours.

SECT. IV. *Of transparent CRIMSON.*

BUT we may make a liquid Colour, not much inferior to Carmine itself, with the Raspings of Brasil-wood, sold at the Dry-salters and particularly at the great Colour-shop at *Holborn-bridge*; which I mention, because I have been some time without knowing where to find it, for few Colour-shops know what it is; and Lovers of Painting in this Way, are now and then impatient to have such Things, and unacquainted where to find them out.

To make this transparent Colour, we may take an Ounce of the Raspings of Brasil-wood, and boil it in twelve Ounces of pale stale Beer, and a little Allum, 'till the Colour of the Liquor is as strong as you please; which you may discover, by dipping into it a Slip of white Paper, and when the Colour is as you would have it, and 'tis cold, pass it through a Linnen-cloth, and put the clear Liquor into a Bottle for Use. This is one of the Receipts I had from a Manuscript of the great Mr. *Boyle*.

AND if we have a mind to bring this Colour to a Body, take Ox-blood, and dry it, till we can reduce it to Powder, which, being mix'd with it, will give us a Colour, which I think will be little less in Value than a middling Sort of Carmine: And, as a Gentleman of Learning and good Understanding in these Matters informs me, the Blood of an Ox or Cow so dry'd, will make a good Body for any Colour.

S E C T. V. CRIMSON *from Mr. Boyle.*

TAKE the Fruit of the Berry bearing Spinach, which is known to every Gardener about *London*, press them, and you will have a beautiful red-colour'd Juice from them; boil this, and put about a fourth part of Allum to it when you pour it into the Vessel where 'tis to cool, and then it makes as fine a Colour as any others that are noted, and it is of little Expence, for it will grow any where; and in one Bunch of the Fruit there are Seeds enough to sow two or three Rods of Ground.

THE red Beet-root, back'd with a little strong Vinegar, produces an elegant red Colour, equal to a Tincture of Carmine, then pour it on Alum, and when 'tis cool 'tis fit for Use, where Carmine should be used in washing of Prints: For it is a fine transparent red.

S E C T. VI. *Of INDIAN-RED.*

NEXT to these Colours, Indian-red, though it is a Colour of a Body, is helpful for a back Ground, for Flowers at a Distance, being used thereby with Gum-water. But I shall have Occasion to give an Example of it by and by.

I HAVE lately seen an Earth brought from the *Isle of Wight*, of a much finer Colour than the Indian-red; which I and some others, have try'd, and find to mix extremely well with Gum-water; tho' as it is of a viscous Nature, it requires less Gum than most other Colours: And as it is naturally fit for Use without Grinding, and is viscous, so it will assuredly mix as well with Oyl as with Water. This was discovered by *Edward Lisle,*

Lisle, Esq; to which Gentleman we owe many more extraordinary Things of Value.

THERE is one Thing very extraordinary in this Earth, simple as 'tis, that if we rub a Deal-board with it, it renders it exactly of the Colour of Mohogany-wood, and stains it so deep, and with so much Strength, that it is very hard to get it out without washing. And dry as this Earth was when I receiv'd it, I cannot get it out of some Papers, which by Accident were mix'd in my Pocket with it; so that I am perswaded it will prove of extraordinary Use, when its Virtues come to be known.

SECT. VII. *Of transparent PURPLE.*

AFTER this we may make a transparent Purple, either more red, or nearer the blue Colour, as we shall see Occasion, by using the same Menstruum as was prescribed in the former, *viz.* of pale stale Beer one Pint, in which boil one Pint of rasped Brasil-wood, and half an Ounce of Log-wood or Campechy-wood, till the Liquor is heighten'd to the Colour you desire; which you must try, by dipping a piece of Paper into it. If you then find it too red, add a Quarter of an Ounce of Log-wood to the Brasil-wood, and you will find it much nearer the Purple than the former; and so one may humour any Degree of Purple, as you put more or less Log-wood to the former Composition, and fix the Colour with a little Allum. This will produce such clear Purples, as no Mixture of solid Reds and Blues can produce, and the Receipt has been for a long time kept a Secret.

MADAM *Mariana* of *Amsterdam*, who has been so famous for her Painting in Miniature, and her excellent Manner of illuminating Prints, told me,

me, that the best Purple I could use, might be composed between the Carmine and Indigo; which to strengthen on the red Side one may add Lake between the lighter and darker Part; which I have in many Cases found to be good, and of Significancy: And so Lake, when it is used in the same Way on the foregoing Purple, or the liquid Crimson, produces a very fine Effect. One may vary the Colour of the Purple either redder, by putting more Carmine, or bluer by using more Indigo, which, being mixed on a white *Dutch* Tile, will shew itself.

C H A P. XI.

Of BLUE.

SECT. I. *Of the* ULTRAMARINE.

THE first and best bright Blue we have, is the Ultramarine Blue, which gives a Spirit to all Paintings where Blues are used; but it is very dear, if we have the best, even worth, or at least sold at six Pounds an Ounce; it is made from the *Lapis Lazuli*, divested of its Gold, and ground and made into an impalpable Powder. This Colour however, as it is of a very high Price, will make good its Value in Painting, as the least Touch of it is enough to illuminate a Flower. In using it, leave the white or light part of the Flower uncoloured, excepting that on the Edge of the light next the shaded Parts, colour it with Ultramarine; and, a little into the shaded Part of the Print, add a faint Tincture of Indigo, the Indigo covering a little the Verge on the shady side

side of the Ultramarine, so will your Flower, &c. if it be a bright Blue, appear extremely beautiful.

N. B. THIS is a Colour of Body, and will last as long as one would desire, and even preserve any Colour you can mix with it.

To use it singly, there is nothing more dazzling; as appeared in the Case of colouring Iron-gates, which many Years ago was executed at the Entrance of *Devonshire-house* in *Picadilly*. This Colour was laid upon the Iron-work, at the Expence of many hundred Pounds, and remain'd in great Beauty 'till they were taken down, and the Entrance of that Palace altered; which shews that this Colour will not change, though it suffers all kinds of Weather; for 'tis computed that they had been expos'd upwards of sixty Years. But the best Colour of this sort is rarely to be met with, unless it be at Mr. *Goupee's*, the great Fanshop in *King-street*, near *Covent-Garden*, where is the best I ever saw.

SECT. II. *Of the PRUSSIAN BLUE.*

THE Prussian Blue is the next to the Ultramarine for Beauty, if it is used in Oyl; tho' I imagine it will not hold so well as the foregoing, considering it has not the Body of Ultramarine. This Colour, however, is attempted to be ground in Water; but there is such an oily Quality in it, that it does not mix kindly with Water, and at the best will change, as it is now prepared in the common Way. It has been attempted to make a blue Ink; which indeed held the Colour for a Month or two, but then turn'd to a muddy Yellow; so when you put your Pencil with Gum-water into a Shell of this Blue, you will find where the Water spreads, the Blue will

will change yellowish, till the Body of the Blue is well stirr'd up. And when we have done our best with this Colour in Water, it will only serve to shade Ultramarine with; but in Oyl it serves very well for the present to fill the Place of Ultramarine.

SECT. III. *Of BLUE BISE.*

THE next Colour to the foregoing for Brightness, is that which we call blue Bise; which tho' it is a Colour of body, will flow pretty well in the Pencil; especially if it be well washed, as I have directed the Whites and the Minium to be done.

SECT. IV. *Of SANDERS BLUE.*

AFTER this Colour the Sanders Blue is of very good Use, and may serve as a Shade for Ultramarine, or the blue Bise, where the Shades are not required to be extremely deep, and is of itself a pleasant Blue, to be laid between the Lights and Shades of such a Flower as is of a Mazarine Blue, as 'tis called.

SECT. V. *Of LACMUS or LITMUS BLUE.*

ANOTHER Blue, which is a beautiful Colour, and will run in a Pen as free as Ink, is made of Lacmus, or as some call it Litmus, which may be met with at most Druggists. This Colour however is never met with prepared for Water-colours; and therefore I shall set down the following Method of preparing it according

to Mrs. *Mariana*, for it affords a bright Colour, which has extraordinary Effects.

TAKE of Lacmus one Ounce, and boil it in about a Pint of Small-beer Wort, till the Colour is as strong as you desire, then pour off the Liquor into a Gallipot, and let it cool for Use; it will soon become a Jelly, and by Degrees grow hard. This Colour, however, is to be opened again, and made liquid by Water, so as to be used as Ink; and as it is rendered thinner or thicker, so will be paler or darker. By what I find of this Lacmus, it is not only a beautiful but an holding Colour; for I have some Designs I coloured with it in the Year 1714, which still preserve themselves in as much beauty as they had at the first; and I have seen some in *Holland*, which were said to be done with it forty Years before, which a Year or two ago look'd still as fresh as one would desire the first Day one used it. This Colour, however, if it be touch'd with *Aqua-fortis*, immediately changes to a fine Crimson, little inferior to Carmine, and then sinks quite through the Paper so as not to be got out.

So that when we use this Colour as Blue, it is best to preserve it from *Aqua-fortis*, or such strong Acids. It is a good Shade for Ultramarine, or blue Bise, where the strongest Shades should not be extremely deep; and for colouring of Prints it is very good, as it is a transparent Colour, and goes a great Way.

SECT. VI. Of INDIGO.

INDIGO is the next Colour I shall speak of, as it certainly makes the strongest Shade for Blues of any other, and is a soft and warm Colour, when it is well ground and wash'd with Gum-water, by means of a Stone and Muller. As one happens

happens to want the Use of this, put more Gum-water to it, if you would have it of the lightest cast, or less, as you would have it darker; but before you touch your Print with it, try its Strength upon a white *Dutch* Tile, for it runs warmly in the Pencil, and may chance to be too strong for your Design; which you should always think of, when a flowing Colour is to be laid over a dark Shade of a Print; which Shade will much aggravate its Blackness, and even make it appear quite Black.

SECT. VII. *A fine BLUE from Mr.*
BOYLE.

TAKE the blue Leaves of Rhue, and beat them a little in a Stone-mortar with a wooden Pestel; then put them in Water, Juice and all, for fourteen Days, or more, washing them every Day till they are rotten; and at last beat them and the Water together, till they are in a Pulp, and let them dry in the Sun. This will produce as good a Blue as Indigo, and be much softer; but to keep it a long while, when you beat it the last Time, add a little Powder of Gum-Arabick: You may put more or less of the Gum, as you design to make it more free or tenacious in the Working. 'Tis a fine Blue for Shading, and has a good Body, and runs warm in the Pencil.

SECT. VIII. *Of Mr. BOYLE's transpa-*
rent BLUE, equal to Ultramarine.

IN the next Place, I have a Colour to describe, which I took from the great Mr. Boyle's Manuscripts given me by my Lord Carleton, and

proves a beautiful Blue; and what I admire it for the more is, because the chief of the Ingredients it is composed of, may be easily had during four of the Summer Months, that is, the Cyanus or blue Cornbottle-flower, which abounds in almost every Corn-field; Children may gather it, without hurting any Thing, about the Skirts or Verges of the Corn-field. This Flower has two Blues in it, one of a pale Colour in the larger outward Leaves, and the other a deeper Blue, which lies in the middle of the Flower; both these will do, if they are separated from the Buttons or Cases they grow in; but the deep Blue of the Middle produces much the best Colour, as one may try, by rubbing it while it is fresh, so hard upon a piece of good writing Paper, as to press out the Juice, and it will yield an excellent Colour, which will not fade, as the Experience of two or three Years has shewed me. This part of the Flower is therefore the principal, and what is to be depended upon; therefore the same Day that People gather the Flowers, or the next at the latest, employ some Children to pick that part clean from the rest; and when you have a good Quantity, press what Juice you can from it; and by adding to that a little Allum, you will have a lasting transparent Blue, of as bright a staining Colour as you would desire; and in my Opinion, it is not inferior in Beauty to Ultramarine: But for the other Parts of the Flower, which are paler, I must observe, that when I had a Bushel of them gathered, and had not an Opportunity of pressing them immediately, they changed white; so that I cannot commend them, lest the Allum should not fix them; but as for the middle of the Flower, it is certainly as good a Blue as can be desired, and is durable.

If any one should object, that 'twill be troublesome to make it; let him consider only what Pains there is in gathering and curing of Saffron, which sometimes is sold at thirty Shillings the Pound, and seldom brings three Pounds *per* Pound: But a Blue, if it comes up to the Colour of Ultramarine, is worth four or five Pounds *per* Ounce, especially when it stains so well as this does; therefore I should think it worth while, when any one has made this Experiment, as I have done, to have a piece of Ground on purpose for this Use, where no other Thing but this Corn-bottle, or Cyanus should be sown: And as this Flower is plentiful enough in the Fields between *Twittenham* and *Teddington*, in *Middlesex*, so there may be Seed enough gathered of it, in a Quarter of an Hour, by one Hand, to sow an hundred acres. There is likewise abundance of it in the large Corn-fields in *Cambridgeshire*. But how valuable are many Things that we daily trample under Foot; if we knew their Virtues, we should use them, provided we could bring them to a proper Market. But let that be as it will; gather the Flowers about the beginning of *June*, or in *July* or *August*, and some you may find in *May*; these are for your immediate Work to make the Colour of, and must be dispatched as Saffron is done, or it will lose its Perfections. And as I happen to mention Saffron, which I very well know the Management of, by drying it on Kilns, I do not see why these Chives of Flowers may not be cured in the same Manner; they would certainly produce a much greater body of Colour, and a Tincture might be drawn from them with more ease, than if we were to press them raw or fresh from the Field.

THE Way then that I would have them dry'd like Saffron, is, to provide in the first place such a Kiln as is used for curing Saffron; within which,
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make a small Charcoal-fire, which communicates an Heat to the top of the Kiln, which is covered with an Hair Cloth; and upon that, lay on four or five Sheets of white Paper, I mean such as we use for curing of Saffron; then lay on the Paper a parcel of the picked Flowers, till you have the thickness of two or three Inches, laying close and flat with a Knife, and sprinkle it with some thin Gum-water; then cover the Cake of Flowers with two or three more Sheets of Paper, and lay upon them a Board with a little Weight upon it for a few Minutes; then take off the Board, and, taking hold of all the Papers with both Hands, turn your Cake of Flowers upon the Kiln, and when 'tis rightly placed, take off the upper Papers, and sprinkle the Cake again with some thin Gum-water, and with a Knife settle your Cake of Flowers, and lay on again your Papers and Board, with a Weight upon it for a Minute or two, and then turn your Papers again and again, till the Flower-cake becomes united, and of the thickness of a Cake of Saffron; in this Work you will find the Flowers grow darker every time they are turned, till at length the Cake will look of a deep Blue tending to Black. From whence we easily draw such a Tincture as I speak off.

DURING this Operation, great care must be taken of the Fire, that it does not scorch the Flowers; let it be gentle and as constant as may be, which will be a sure Way to bring your Flower-cake to a good Colour.

I WOULD advise in this Case, that whoever attempts this, they should see the Management of Saffron, or read Accounts that are published of the curing it.

IF any one is desirous of seeing the curing of Saffron, with the Manner of the Kilns; the best

Artists

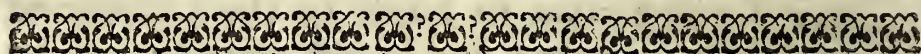
Artists that way, are about *Chesterford* and *Littlebury* in *Essex*; though I think it can be of no great Moment, since there is published a large Account of its Preparation, in Mr. BRADLEY'S *Monthly Treatise of Husbandry and Gardening*; and in the present Case of the Blue, I have made the necessary Alterations, and I think given what is sufficient for such as are acquainted already with the curing of Flowers by Kiln-drying.

BUT I come now to speak of the Culture of this valuable Flower; for I must now so call it, since I am well assured of its Perfections.

EVERY Knob or Head of Seed must be open'd before we sow it, for each Head contains a great number of Seeds; the Preparation of the Ground for the Reception of this Seed, need not be more troublesome or expensive than common Ploughing requires; which being done, sow the Seed either at the End of *August*, which will come up soon enough to stand the Winter, and blossom early the *May* following; or else sow it at the End of *March*, and it will begin flowering the following *June*. When the Ground is fresh plow'd at either of these Seasons, sow the Seed, and harrow it in with Bushes, and it will presently come up.

IN the Choice of the Seed I should observe, that it be gathered only in such Fields where we are sure there grow no Corn-bottles of any other Colour but Blue; and then one may expect all the Plants which rise from such Seed to produce blue Flowers; but if they should be gathered in such Places, where there are Varieties of them, we must expect various Sorts, as White, Red, or Purple, although we are sure we gather the Seed from such as were truly of the blue Sort; for according to the Doctrine of the Generation of Plants, which has been explained to the World in
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a great many Instances, if there is a red Flower of the same Tribe with this growing near it, the difference of Colour will be so intermix'd between both, that the Seed of both will bring a variety from the Principal, depending of the Colours of both. And thus I conclude what I have to say of Blues; as for the Smalt, 'tis much too heavy a Colour to be used for illuminating of Prints.



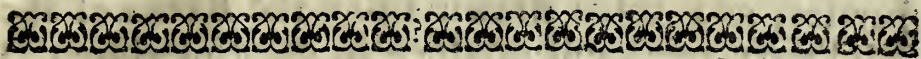
C H A P. XII.

Of BLACK.

THE proper Black for Water-colours, is what they call Ivory-black, which if it be pure and well ground, is of use in miniature Painting; but very seldom; and indeed ought not to be used in colouring of Prints, if they are good, for 'tis too heavy a Colour, and hides the beautiful Strokes of the Engraver, unless done with very great care: If it is necessary however to use Black by way of darkening a Print, rather chuse a strong Tincture of good *Indian Ink*, than the Ivory-black; but to colour Pieces in Miniature, use the Ivory-black prepared as follows.

LET your burnt Ivory be well ground in Gum-water, and then beat the White of an Egg very well till you find a kind of oily Liquor settles to the bottom; this Liquor mix with as much of the Ivory-black as you think necessary to make it run freely in the Pencil, and it will afford an extraordinary Gloss; and if the Object is shining, such as the Wings of some Beetles, mix with some of it a little White upon a *Dutch* glazed Tile, till you find it light enough to relieve the Shade; and

and then make another lighter Mixture of the same, which being used on the brighter Part of the Subject, will produce the Effect you desire.



C H A P. XIII.

Of GREENS.

The Progress of Greens from Yellow to Blue.

I HAVE already given an Account of the Progress of Colour from White, through the Yellows to the Orange, the Reds, Purples and Blues, to the Blacks; and shall now treat of the Greens in their several Orders, from the Yellows to the Blues.

GREENS are allow'd by all to depend upon the Yellow and the Blue, and by the help of one and the other Colour, may be framed any green Colour we please.

THE Gamboge is one of our first Yellows, which, with the Preparation of Verdigrease, I shall insert, may be made to produce five or six Sorts of Green, according as the Gamboge abounds, or is in less Quantity; if it abounds, one may make a tolerable Oak Green with it, and being still more mix'd with the Verdigrease Green, it will be a Grass Green.

BUT the Yellow that I prefer before all others, is that which is made of *French* Berries described above, which I have observed is of different Capacities, as the Liquor it is boyled in is more or less stain'd with it; when it is very thin, it makes a good Glaze all over the Verdigrease, and, as it comes nearer to *Dutch* Pink or Gall-stone, com-

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mands almost any Colour we want, being agreeably mix'd with the transparent Verdigrease, and still is transparent.

So the Yellow drawn from the Roots of Barberries, and those drawn from the Roots of the Mulberry-tree, will produce in great measure the like Effect, being mix'd with the transparent Verdigrease.

As for the Verdigrease itself, it produces a fine blueish Green, flows easy in the Pencil, and may even serve as an Ink to write with.

THE preparing of this Colour is yet very little known, and I shall therefore inform my Reader how to do it.

TAKE of common Verdigrease three Ounces, break it a little, and boil it gently in a Pint of White-wine Vinegar, stirring it continually; when you perceive it to boil, add a little Tartar broken, and keep your Mixture stirring till you find the clear Liquor of such a Colour as you would wish; that is, of a fine transparent Green, with a blue Cast, which you may do by dipping in a Stick, and touching a piece of Paper with it.

WHEN you have a Colour to your Mind, pour it through a Linnen-cloth into an open Vessel, and set it to cool; when it is quite cold, keep it in a close Vessel for Use, pouring out a little at a time as you want it; for when it is exposed to the Air, it will soon dry, but is reducible again by common Water.

WHEN we prepare this liquid Colour, do not use the distilled Verdigrease, for it will not answer the end we propose.

THIS Liquid should be touched upon part of the Lights and Shades of a Print, and the Shades afterwards coloured with Sap-green.

N.B. IN the making this Green, take care you make it strong enough, for it is not to be strengthened

ned afterwards, without the trouble of boiling afresh, but may at any time be rendered as faint as we please, by mixing common Water with it.

SAP-GREEN is a Colour like that of an Oak-leaf, if it is used thin with common Water; for this as well as the former wants no Gum, but it will, if we use it strong, produce as dark a Green as any we can imagine: We may try our Colour first on a white *Dutch Tile*, and by thinning it with Water, render it of what Strength we please, and brighten it very much, with adding to it a little of the Liquid Verdigrease.

Sap-Green is made two Ways, viz.

First, TAKE the Flowers of the blue *Flag-Iris*, or *Flower-de-Luce*, and press them while there is any Juice to be got from them; boil this gently in a glazed Pipkin, till it grows thick, adding a little Allum to it, and it will make a very useful and lasting Green.

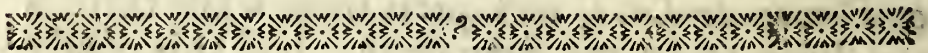
N. B. In the boiling of any Juice, &c. of the Colours heretofore mentioned, use an earthen glazed Pipkin; for if you boil them in Vessels of Metal, they will sometimes change from the Design we intend.

Secondly, ANOTHER Way there is of producing a Sap-green, for washing or illuminating of Prints, which is to take the Juice of Buckthorn-berries; and tho' that Juice simply will yield only a dark Purple, of a very base Hue, yet, by adding Tartar to it, it will turn to a good Sap-green, and may be brought to a good Consistence by boiling.

EITHER of these Colours, will mix with the liquid Verdigrease above mentioned, as well as make a delicate Shade for it.

THERE is yet one Green more, which is admired by some, and carries a good Body with

it, with a Degree of Transparency, as I make it; tho' as it is commonly used, it is a full-bodied Colour, fit only for Miniature painting: For this end they mix *Dutch* Pink with Indigo, to what Degree of Colour they please; but in the Place of *Dutch* Pink, my high Preparation of *French* Berries with Indigo, I think much to be preferr'd, as this answers all the Intent of *Dutch* Pink, and carries a Transparency with it, which the *Dutch* Pink has not. And thus have I given such an Account of the Passage of Greens from the Yellow to the darkest Blue, as I think necessary, for the Instruction of those who delight in illuminating of Prints and Painting in Water-colours.



C H A P. XIV.

Curious Directions for Drawing with Crayons.

THE Manner of Drawing with Crayons is much more expeditious, where we would express the Objects we are to take in Colours, than Painting in Water-colours; for, before we use them to strike the Colours we intend, only a slight Out-line need be made, either with Chalk, Charcoal, or Red-oker, of the Subject we would represent. We may bring these Drawings to a delicate Softness and fine Expression, but then they must be always kept in Books, or under Glasses in Frames, where they may not rub; for a Touch of a rude Finger, unacquainted with the Performance, may change the Shades or Lights, and so alter the fine Design of the Work.

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BUT we must first provide an indifferent coarse Paper, of the Colour of whited brown Paper, for the Colour of the Paper being a little dark, gives a better Opportunity of shewing the light or white Strokes of our Crayons, and will give a good Relief to the tender Parts of our Work.

AGAIN, the little Roughness of such Paper will make the Crayons of every Colour express themselves much stronger, than if we were to draw with them upon smooth Paper.

THESE Crayons of every Sort of Colour, you will have occasion for, are made in Pastils, and sold by most of the most noted Colour-men in *London*; a few will serve you at first to try your Hand, and in taking of Sketches of Prospects are very useful, when you are once Master of Drawing enough to take the Out-lines; for a little Box of them will serve to mark the Colours which you will remark in the different Parts of your Prospect, without the Trouble of Water and Gum-Water, which must be had if we use Water-colours, and would be troublesome to get for your Use in the Fields, where you should take these Prospects from.

THESE Crayons being of so easy a Use, may encourage us to colour our Prospects after the Life, where we shall discover the different Colours of the several Fields which are very different from one another, according as they happen to be cropp'd, or situated, and then the Woods which are in View commonly consist of Variety of Trees, which have every one of them their different Colour, which at once we may see in our Crayons, and mark it as it happens to be upon our Drawing: But if our Wood should prove all of one Sort of Tree, we shall still find a great Variety of Colours in the Trees produced by their different Situation; and if we match our Crayons well

well with the Colours of our Trees, and other Parts of the Prospect, we shall learn by it what is a natural Representation of Things.

BUT to do this effectually, if you cannot furnish a Draught in Colour at once, take the same Hour the next Day to do it in, because as the Sun happens to be at one Point, at one Hour of the Day, so the next Day it will be about the same Point at the same Hour; and if you was to miss that Time, the Shades of all your Objects will be altered, and your Colours would be vary'd: So you should likewise take either the Mornings or Evenings for this Purpose, for then you will have strong Shades and strong Lights, which will give a pleasing Variety to your Picture. *Memorandum*, If you have a bright Morning or Evening, when you begin, finish your Work when the Hours of your Drawing are as bright as they were at first, if you can.

FOR want of such Observations many one, who is a good Draughts-man spoils a fine Drawing; he will sometimes place his Greens improperly, and give Strengths where only little Touches should be used. And some who are Beginners in these Affairs, will encourage a favourite Colour, and neglect the proper ornamental Colours.

I THINK I have not seen finer Prospects, to teach us this Art, than what are on both sides *Guilford-downs*, *Box-hill*, *Leith-hill*, *Richmond-hill*, and about *High-wickham*, where one has fine Vales, beautiful Hills, and delightful Woods. In the Spring and Autumn, to look on the Woods, you may almost perceive every Colour in our Collection; some Trees will open with a yellowish Cast, others with a sharp blueish Green, some Brown, and others of a reddish Colour; and so in the dying away of the Leaves in Autumn, or towards the Fall of the Leaf, you will see as much Variety.

A N D

AND you will find then the Fields, and all the changeable Parts of the Country, of different Colours; about half a score Drawings in Crayons of these Sorts, will enliven your Imagination, and teach you the Art of Colouring in the most Natural, and consequently the most beautiful Manner.

BUT if you design principally to draw Landscapes in this Manner, I advise to make your Outlines, with Charcoal or Black-lead, very gently touch'd, but Black-lead is the best.

WHEN in this Way of Drawing, one has an Object where a light Colour and a shaded Colour should fall naturally into one another, then, when you have marked your Paper with both, take a dry short hair'd Pencil, and brush it gently between both, 'till you have mixed them so easily together, that you cannot discern where the Lights and the Shades separate, or where the Light and the Shade part from one another; but this is properly for the larger Drawings, which are to appear soft and tender.

If one wants a Pencil, of the Sort I speak of, take a Piece of soft whited brown Paper, and roll it, or twist it up till 'tis of the Bigness of a Camel's Hair-pencil, of the Size we generally use in Water-colours, and when you have rubbed the pointed End gently on a rough piece of clean Board, or a piece of rough brown Paper, 'twill serve instead of a Pencil to * scumble your Work or make one Colour flow into another.

THERE remains now only to tell you how you ought, in this particular Way of Drawing, to cut or Point your Crayons; take a fine Penknife, and instead of Drawing it down from the Body of the Crayon towards the Point, as one does

* Scumbling is rubbing in gently one Colour into another.

does in pointing a Black-lead Pencil, begin at the Point and draw your Knife upwards, in such a Manner as to leave your Crayon of the same Figure you would require a Black-lead Pencil to be of when 'twas sharpened; for these Crayons are hardly two Inches long, and are brittle enough: Besides if they have any Knots in them, they will be very apt to break.

ONE may observe too, before we conclude this Chapter of Drawing and Colouring with Crayons, that all these appear immediately of the Colour one would express, whereas the Colours to be us'd with Water will be much deeper or darker when the Water is put to them, than they will prove when they are dry, which may confound a Beginner, and occasion him to make his Colour lighter, but when this comes to dry he will see his Error.



C H A P. XV.

The Use and Nature of Dry Colours.

I. **B**LUE Bife is the most excellent Blue next to Ultramarine, which is too good to wash withal, and therefore I leave it out here, and put in blue Bife, which will very well serve instead of it; and indeed you may leave out both, and use Smalt instead of them, but that it will not work so well as Bife; no Bife is too good to use upon all Occasions, but only when you intend to bestow some Cost and Pains upon a Piece, otherwise you may use no other Blue in your Work than blue Verditer, with which you may make a pretty good Shift, without any other Blue, I mean in any ordinary Work,

2. INDIGO is a dark Blue, and is used principally to shadow with upon your other Blue: Indigo and yellow Berries mixed together make a dark Green to shadow other Greens within the darkest Places.

3. BLUE Verditer is a very bright pleasant Blue, and the easiest to work with in Water: It is somewhat inclining to a Green, and being mixed with yellow Berries it makes a good Green; This Blue is most used.

4. VERDIGREASE is a good Green, but subject to decay: when it is dry upon the Paper it will be of a lighter Colour than it is when you lay it first on, therefore, to preserve it from that Fault, put some Sap-green amongst it to dissolve in it, and it will make it keep its Colour: This Colour is of a poisonous Nature, and therefore you must be careful how you use it, that it come not near your Mouth. There is distilled Verdigrase to be bought at the Colour-shops, that is a far better Green than the other, but it is somewhat dear, and the other will serve instead of it.

5. VERDITER-Green is a light Green, seldom used in any Thing but in colouring of Landscapes, those Places that should shew a far off, and it is good for such a Purpose, because it is somewhat inclining to a blue, but you may make a shift to do any thing well enough without it; for a little blue Verditer mix'd with Copper-green and a little White, will make just such another Colour.

6. SAP-Green is a dark dirty Green, and never used but to shadow other Greens in the darkest Places, or else to lay upon some dark Ground behind a Picture, which requires to be coloured with a dark Green; but you may make a shift well enough without this Green, for Indigo and yellow Berries make just such another Colour.

7. COPPER-Green, is an excellent transparent Green, of a shining Nature if it be thickned in the Sun, or upon a softly Fire, and it is most used of any Green in washing of Prints, especially in colouring of the Grass-ground, or Trees, for it is a most perfect Grass-green.

8. VERMILLION is the perfectest Scarlet-colour, you need not grind it, nor wash it, it is fine enough of itself, only temper it with your Finger in a Gallipot, or Oyster-shell, with Gum-water, and it will be ready for Use; if you put a little yellow Berries amongst it, it will make it the brighter Colour; this is principally used for Garments.

9. LAKE is an excellent Crimfon-colour; with it you may shadow Vermillion, or your yellow Garments in the darkest Places; with it you may make a Sky-colour, being mixed only with white; with it you make Flesh-colour, sometimes mix'd together with white and a little Red-lead; it is of an excellent Colour itself to colour Garments, or the like. *Indian Lake* is the best Lake, but too good to be used to wash Prints with, unless you intend to bestow great Curiosity upon your Work; but the best sort of ordinary Lake will serve well enough for ordinary Uses, but that also will be somewhat costly.

THEREFORE instead thereof you may use red Ink thickened upon the Fire, and it will serve very well for your Purpose, and better than Lake, unless it be very good.

NOTE, if you would make a light Sky-colour of your red Ink, or if you would mix it among your Flesh-colour, you must not thicken it; you should rather chuse to shadow your Vermillion with Spanish-brown, than thick red Ink, which will serve well for that Purpose, and is much cheaper

cheaper, but it is not altogether so bright a Colour and clear.

10. RED-LEAD is the nearest to an Orange-colour, and putting a little yellow Berries into some of it, will make a perfect Orange-colour; but if you mean to make Flesh-colour of it, you must put no yellow, but only when you would make an Orange-colour. This Colour is used for the colouring of Buildings, or High-ways in Landscape, being mix'd with a little white. Also it is the only bright Colour to shadow yellow Garments with, to make them shew like changeable Taffety; it is good also to colour any light Ground in a Picture, taking only the thin Water of it, and so for several other Uses as you shall see occasion for it.

11. YELLOW Berries are most used in washing of all other Colours; their Colour is bright and transparent, fit for all Uses, and is sufficient without the Use of any other Yellow.

12. SAFFRON is a deep Yellow, if you let it stand a pretty while; it is good principally to shadow yellow Berries with, instead of Red-lead; and it is somewhat a brighter Shadow; but you may make shift well enough without this Colour, for Red-lead and yellow Berries make just such another Colour.

13. LIGHT Masticoat is a light Yellow, just like yellow Berries and white, and therefore you may make shift well enough without it, only for saving you a Labour to mix your yellow Berries with white, when you have Occasion for a light Yellow, which you may sometimes make use of to colour a light Ground in a Picture, and then shadow it with the Water of burnt Umber or Red-lead, that is, the thinnest Part of the Colour.

14, 15. CERUSE is the best White, if it be good and finely ground ready to your Hand, as you may have it at some Colour-shops, or for want of it buy White-lead pick'd to your Hand; either of these will serve well enough, for either of them, being mingled with another Colour, make it lighter, and the more you put, the lighter they will be, as you shall find in the using of them.

16. SPANISH-Brown is a dirty brown Colour, yet of great Use, not to colour any Garment with, unless it be an old Man's-gown, but to shadow Vermillion, or to lay upon any dark Ground behind a Picture, or to shadow yellow Berries in the darkest Places, when you want Lake, or thick red Ink.

17. It is the best and brightest Colour when it is burnt in the Fire till it be red hot; tho', if you would colour any Hare, Horse, Dog, or the like, you must not burn it; but for other Uses it is best when it is burnt, for instance, to colour any wooden Post, Bodies of Trees, or any Thing else of Wood, or any dark Ground in a Picture: It is not to be used about any Garments, unless you would colour many old Man's Gowns, or Caps, standing together, because they must not be all of one Colour of Black, therefore for Distinction and Varieties sake, you may use Umber unburnt for some of them.

18. PRINTERS Black is most used, because it is easiest to be had, and serves very well in washing. Note, you must never put any Black amongst your Colours to make them dark, for it will make them dirty, neither should you shadow any Colour with Black, unless it be Spanish-brown, when you would colour an old Man's Gown, that requires to be done of a sad Colour; for whatsoever

ver is shadowed with Black will look dirty, and not bright, fair and beautiful.

19. IVORY burnt, or for want of that, Bone burnt, is the blackest Black, and it is thus made; take Ivory, or for want of it, some white Bone, and put it into the Fire till it be thoroughly burned, then take it out and let it cool, and so slit it in the middle, and take out the blackest of it in the middle and grind it for your Use.

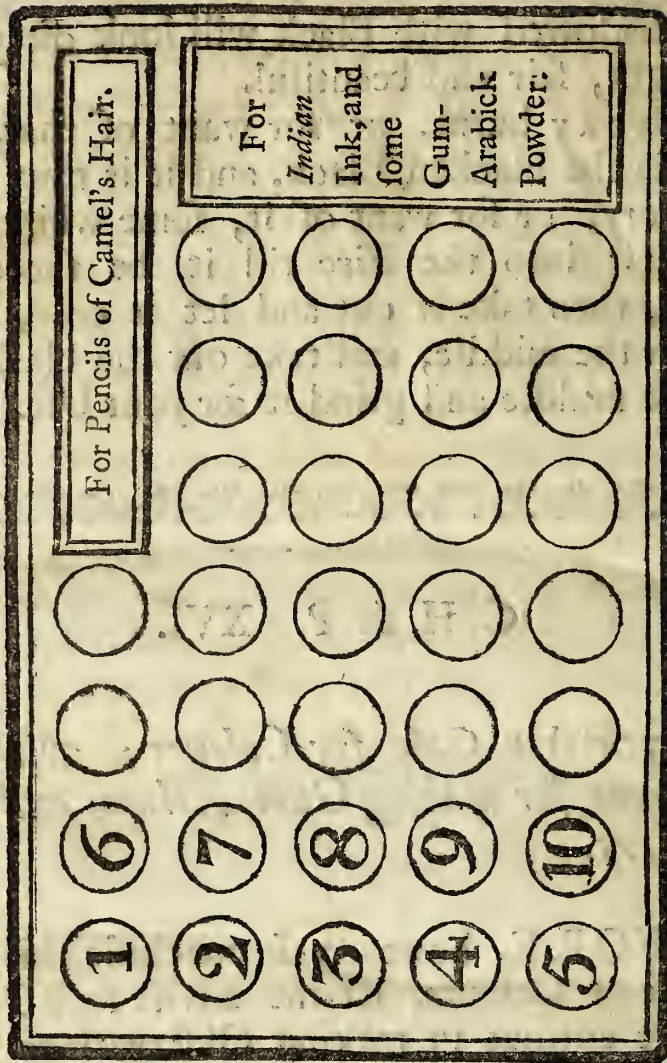


C H A P. XVI.

Of a portable Case for Colours; with Directions for making Gum, Allum, and other Waters.

BEFORE, however, I conclude this Treatise of Colours, let me advise such Persons, who are curious in making Observations of the Colours of Flowers, to have always in their Pocket a small Case with Colours in it, about the Bigness of a Snuff-box, made of Ivory, about half an Inch thick, in which should be scooped several Concaves about half an Inch Diameter each, and as deep as the Ivory would bear, without going through: These Cavities may be placed as near one another as possible, and filled with Colours of several Sorts; and as for the Liquid Colours, they will dry by being exposed to the Air, so that one may have them altogether in a few Days dry enough to be carried in the Pocket; I shall suppose the piece of Ivory disposed in the following Manner, *viz.*

IN



IN the foregoing Figure one may observe the Disposition of the several Cavities for the Colours in the Numbers 1, 2, 3, 4, 5, &c. and on one side a little Case for Pencils, and another for *Indian-ink*, Gum-Arabick powdered with white Sugar-candy, or for any thing else an Artist may have Occasion for in the painting Way.

IN such a Case you may have thirty two sorts of Colour under very easy Command, besides other Necessaries: Then as a Cover to this, let there be a piece of plain Ivory to open with an Hinge, that may serve as a Pallet, and all this will lie in a very narrow Compass; nay, even though one was to add another piece of Ivory of half an Inch thick,
to

to open below that of the Colours, to include a small pair of Compasses, a Port-crayon, and some other such useful Materials for Drawing.

How to make Gum-water.

THERE remains now, only to mention the Way how to prepare Gum, Allum, and other Waters in the best Manner. To make Gum-water, take of the whitest Gum-Arabick one Ounce, of clear white Sugar candied half an Ounce; dissolve these in a Quart of clear Water, and add to it, if you will, a little Coloquintida. When your Gum-water is thus prepared, pass it easily through a fine Sieve, or a piece of Muslin, and keep it in a Bottle so stopped, that no Dirt may get in; and as you want to use it, pour out a little at a Time; for if this proves dirty or foul, it will spoil the Brightness of your Colours. The use of the Coloquintida is only to keep the Flies from spoiling your Work, if it should be exposed.

To make Allum-water.

BOIL four Ounces of Allum in a Quart of Rain or River-water till the Allum is dissolved, and let it stand twenty four Hours.

Use of Allum-water.

WITH this Water wash the Prints you design to colour, which will fix the Paper so, that the Colours will not sink or run in it when you lay them on, and will help likewise to brighten your Colours.

If your Paper is very thin and loose, then let your Paper be washed with the above Water four or five Times, letting it dry between every Time, and your Paper must always dry before you lay any of your Colours upon it.

But you must observe, that if you design to varnish your Prints after they are colour'd, then wash
the

the Prints all over equally with white Starch before you colour them, and when that is dry, lay on your Colours.

To make Lime-water.

LIME-water is made by taking some unslacked Lime, and covering it an Inch with Water, and so letting it remain for twelve Hours, pour off the clear, and keep it for Use.

N. B. With this Water you may change your Sap-green into Blue.

Water made with Pearl-ashes.

TAKE about half an Ounce of Pearl-ashes, and steep them twelve Hours in Rain or River-water, then pour off the clear, and that Water is excellent to use with Brasil-wood, in order to enliven its red Colour.

Size for Water-colours.

TAKE the Cuttings of white Glover's Leather, boil them in common Water till the Liquor will jelly; you may prepare any Colour with this Size when it is warm, and it should always be used warm.

THE Use of it is, that none of your Colours should shine by Candle-light, as they would do if they were to be mixt with Gum-water; therefore the Scenes of Play-houses are painted in Size.



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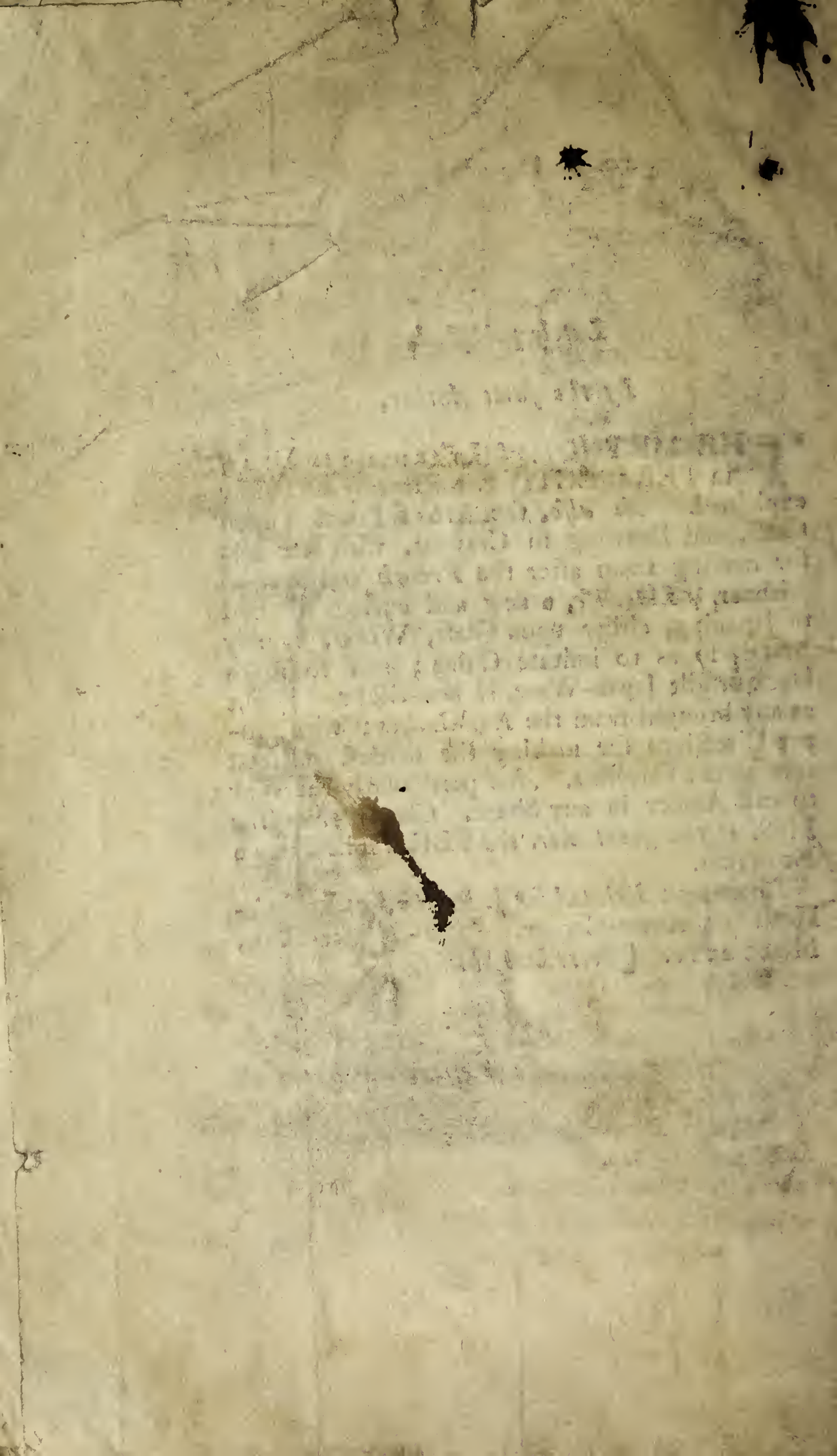
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